SAFETY INFORMATION
It is recommended that you read the safety and operation instructions before using the thermometer.

WARNING
To avoid electrical shock, do not use this instrument when working voltages at the measurement surface over 24V AC or DC.

WARNING
To avoid damage or burns, do not make temperature measurement in microwave ovens.

CAUTION
Repeated sharp flexing can break the thermocouple leads. To prolong lead life, avoid sharp bends in the leads, especially near the connector.

The symbol on the instrument indicates that the operator must refer to an explanation in this manual.

FEATURES:
- Highly accurate thermometer with 0.1% basic accuracy.
- Three displays for easy observations.
- Four thermocouple types K/J/T/E for common use.
- Robust protective holster.
- Auto-Power Off and Backlight functions.
- MIN/MAX/AVG/REL/HOLD functions.

OPERATING INSTRUCTIONS
1. “Power” Button
   - The “ ” key turns the thermometer on or off. In the MAX/MIN record mode the meter cannot be powered off. With the power off, push and hold this key for more than 4 seconds to disable auto power-off and turn the meter on.

2. “HOLD” Button
   - Press the “HOLD” key to enter the Data Hold mode, the “HOLD” annunciator is displayed. When HOLD mode is selected, the thermometer holds the present readings and stops all further measurements.
   - To cancel HOLD mode, press the “HOLD” key again to cancel HOLD mode and allow the thermometer to resume taking measurements. In the MAX/MIN recording mode, press the “HOLD” key to stop the recording. Press “HOLD” key again to resume recording. (Previously recorded readings are not erased.)

3. “ ” Button
   - Press the “ ” button to toggle ON or OFF the backlight. The backlight will switch off automatically after 30 seconds. Readings are displayed in either degrees Celsius (°C) or degrees Fahrenheit (°F). When the thermometer is turned on, it is set to the temperature scale that was in use when the thermometer was last turned off. To change the temperature scale, press the “ °C/°F” button for more than 2 seconds.

4. “REL” Button
   - Press the “REL” key to enter the Relative mode, zero the display, and store the displayed reading as a reference value. The annunciator REL will appear on the LCD. Press the “REL” key for more than 2 seconds to exit the relative mode. The relative value can also be entered by the user. First, enter the desired Relative value. Press “REL” key to exit the relative mode.
   - In the Relative mode, the value (can not be greater than ±2,000 counts) shown on the LCD is always the difference between the stored reference and the present reading.

5. “Type” Button: K/J/T/E Thermocouple Type
   - The “ ” key selects the thermocouple type to be used as a reference. When the thermometer is turned on, it is set to the type that was in use when the thermometer was last turned off.

6. “MAX/MIN” Button: Record mode
   - Press “MAX/MIN” key to enter the MAX/MIN Recording mode, displays the Maximum reading, Minimum reading, “MAX-MIN” reading and Average reading in the record mode. In this mode the automatic power-off feature is disabled and all function keys are disabled. The annunciator REL is displayed on the display, and store the displayed reading as a reference value. The annunciator REL will appear on the LCD. Press the “REL” key for more than 2 seconds.

7. “Hi/Lo” Button: LIMITS mode
   - Press the “Hi/Lo” key to enter the Hi/Lo LIMITS comparative mode, “LIMIT” is displayed. When the input temperature value is above the Hi value, the beeper emits a continuous tone and “Hi” is displayed. When input temperature value is below the Lo value, the beeper emits a pulse tone and “Lo” is displayed. Press the “Hi/Lo” LIMIT key again to exit the Hi/Lo LIMIT mode.

8. “A” Button
   - The “A” key increases the value of the selected digit. (See “SET” mode later in this manual.)

9. “TC OFFSET” Button
   - This button allows the user to adjust the Cold Junction Compensation offset up to ±2.5 counts. This value is used to compensate for thermocouple sensor error. When a value is entered, the readings displayed on the LCD will be automatically adjusted to include this offset. (See “SET” mode later in this manual.)

10. “ ” Button
    - The “ ” key decreases the value of the selected digit. (See “SET” mode later in this manual.)

11. “ ” Button
    - Allows user to set the Relative value, Hi/Lo Limits value and Cold Junction Compensation value. Press “SET” key to enter SET mode. The LCD displays “SET” and set annunciator is show in the upper right.

Set Relative value:
Press “SET” key to enter SET mode, then press “REL” button to set relative value. Set “REL” and “T1” annunciators are displayed. Press “ ” or “ ” to increase or decrease the value of the flashing digit, press “A” to advance to the next digit. Use “ ” or “ ” to set positive or negative for this relative value. Then press the “ENTER” key to set the relative value for T1. Follow the same procedure for T2. In this Relative SET mode, the value can not be greater than ±1999.9 counts. If this value more than ±1999.9 counts, “Err” displayed and a valid offset must be entered.

Set Hi/Lo Limit value:
Press “SET” key to enter SET mode, then press Hi/Lo button to set Hi/Lo Limit value. “SET”, “LIMIT”, “Hi” and “T1” annunciators are displayed. Press “ ” or “ ” to increase or decrease the value of the flashing digit, press “A” to advance to the next digit. Use “ ” or “ ” to set positive or negative for this Hi/Lo Limit value. Then press the “ENTER” key to store the Hi limit value for T1. Follow the same procedure for T2. In this Hi/Lo Limit SET mode, the value can not be greater than ±1999.9 counts. If this value more than ±1999.9 counts, “Err” displayed and a valid limit must be entered.

Set Cold Junction Compensation (TC OFFSET):
Press SET key to enter SET mode, then Press TC OFFSET button to set TC OFFSET value. First, “CJ” is displayed on LCD. The meter will then enter SET TC OFFSET mode, “SET” and “T1” annunciator is displayed. Press “ ” or “ ” to increase or decrease the value of the flashing digit, press “A” to advance to the next digit. Press “A” or “ ” to set positive or negative for this TC OFFSET value. Then press the “ENTER” key to store the TC OFFSET value for T1. Next enter the TC OFFSET value for T2. In this TC OFFSET SET mode, the value can not be greater than ±5.0 counts. If this value more than ±5.0 counts, “Err” displayed and a valid offset must be entered.
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OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of 13 months from date of purchase. OMEGA'S WARRANTY adds an additional one (1) month grace period to the normal one (1) year product warranty to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA'S Customer Service Department will issue an Authorized Return (AR) number immediately upon receipt of a written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA'S WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, points, fuses, and triacs.

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RETURN REQUESTS/INQUIRIES

For immediate technical information or assistance:

U.S.A. and Canada:
- Sales: 1-800-826-6343/1-800-TC-OMEGA
- Customer Service: 1-800-622-5279/1-800-622-8857
- Engineering Service: 1-800-872-9462/1-800-USA-WHEN

For non-warranty repairs, consult OMEGA for current repair charges. Have the following information available:
- Model and serial number of the product purchased.
- Cost of the repair.
- A written description of the problem.

To RETURN PRODUCT(S) TO OMEGA, the following must be included:
- The purchased product, and the product was PURCHASED.
- Model and serial number of the product purchased.
- Repair instructions and/or diagnostic problems relative to the product.

REPAIRS, consult OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER IMMEDIATELY UPON RECEIPT OF A WRITTEN REQUEST. The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, insurance and proper packaging to prevent breakage in transit. FOR RETURN REQUESTS, have the following information available:
- Purchase Order number to cover the cost of the repair.
- Serial and model number of the product purchased.
- Repair instructions and/or diagnostic problems relative to the product.

For WARRANTY REQUESTS, please have the following information available:
- Purchase Order number under which the product was PURCHASED.
- Serial and model number of the product purchased.
- Repair instructions and/or diagnostic problems relative to the product.